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RAILWAYS

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MEXICO.

A BRIEF REVIEW

OF THE

RAILWAY HISTORY OF NEW SPAIN.

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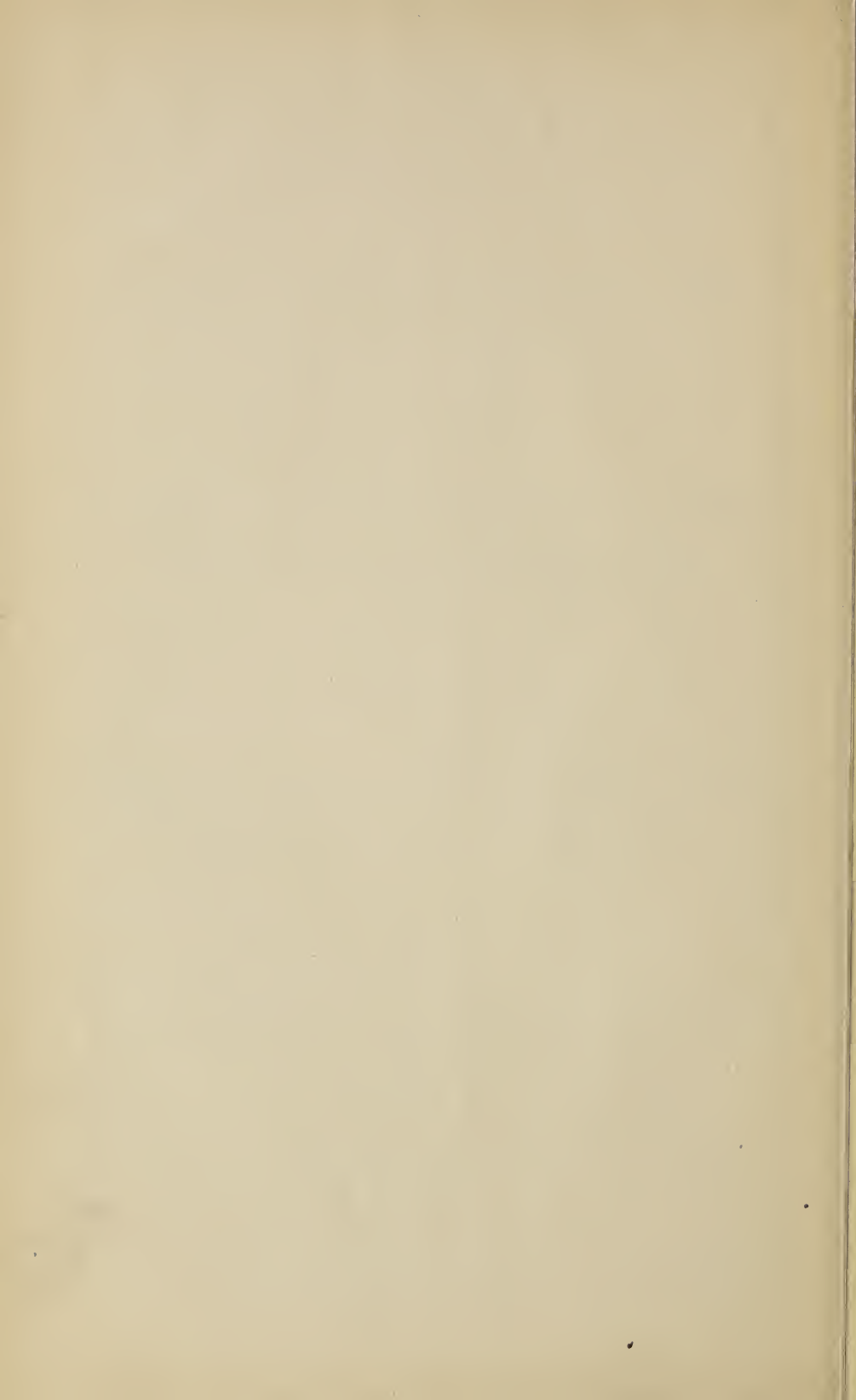
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HOW RAILWAYS HAVE ALREADY PAID IN
MEXICAN TERRITORY.

WHAT RAILWAYS HAVE DONE FOR THE PROV-
INCES OF NEW SPAIN WITHOUT POPU-
LATION.

WHAT NEW RAILWAYS DO FOR LONG-SET-
TLED AND POPULOUS COUNTRIES.

HOW THE ONE RAILROAD OF MEXICO HAS
PAID.



WHAT RAILWAYS HAVE ALREADY DONE FOR SPANISH AMERICA.

Arizona, Colorado (west of Denver and south of the Arkansas), California, Nevada, southern Wyoming, Utah, New Mexico and Texas are all original outlying provinces of Mexico, the New Spain won by the Conquistadores in the sixteenth century, and scientifically studied and described by Humboldt about A. D. 1800.

These outlying provinces differed from the inlying provinces—the present Republic of Mexico—only in being empty of population, poorer in resources and unknown. The general topography of the whole tract, embracing all the Mexico of 1800, is much the same, excepting that Mexico, as limited to-day, enjoys exclusively on this continent a narrow coast range of low land—*tierra caliente*—which endows her with the added wealth of all tropical products. She is a Colorado and Utah with the Antilles added.

Railways have made these isolated and unknown provinces well known, peopled them with generous populations, crowned them with prosperity and crowded them with industries.

This portion of New Spain, in which railways were built on a large scale, immediately moved forward and began to outstrip in population, wealth, social order and the development of its internal resources that portion of New Spain in which railways were not being built.

And the railways which did this have generally been good properties themselves, and some of them are extremely lucrative investments.* We relate the story in figures.

*The Denver and Rio Grande Railway (Colorado and New Mexico), narrow gauge, for the year ending June 30th, 1881, made net earnings of \$4,535 per mile. The Eureka and Palisade (Nevada) narrow gauge, only ninety-seven miles in length, is paying dividends on \$10,000,000 of stock. The Virginia and Truckee (Nevada), fifty-two miles long, is a dividend-paying road, and although it declines to report what those dividends are, its liabilities per mile (bonds at ten per cent. and stock) are known to foot up to about \$151,923. The Central Pacific (California and Nevada), although its liabilities amount to over \$117,000 per mile; The Union Pacific (southern Wyoming and Utah); The Atchison, Topeka and Santa Fé (Colorado and New Mexico), are all excellent railway properties, vast as is their mileage, and as has been their cost.

Thirty years ago (1850) the populations of these provinces were :

Texas,	212,592
California,	92,597
New Mexico,	61,547
Utah,	11,380

Arizona, Colorado, Wyoming, do not appear in the census tables of 1850. They were not even organized as Territories.

The railway era for the far West began with the close of the American civil war—say about 1865.

Now read in conjunction the two following tables, and see the cause and effect. Exactly as railways enter these provinces population springs up, and with it industries, and the population advances in direct ratio with the railway construction—grows as the railways grow.

I.—TABLE OF RAILWAY MILEAGE.

	1860.	1865.	1870.	1880.
Arizona, . . . . .	....	....	....	384
Colorado, . . . . .	....	....	157	1,531
California,	23	214	925	2,220
Nevada,	593	769
Wyoming,	429	472
Utah,	257	770
New Mexico,	643
Texas,	307	465	711	3,293
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	330	679	3,072	10,082

II.—TABLE OF POPULATIONS.

	1850.	1860.	1870.	1880.
Arizona,	9,658	40,441
Colorado, . . . . .	....	34,277	39,864	194,649
California,	92,597	379,994	560,247	864,686
Nevada, . . . . .	....	6,857	42,491	62,265
Wyoming, . . . . .	....	....	9,118	20,788
Utah,	11,380	40,273	86,786	143,906
New Mexico,	61,547	93,516	91,874	118,430
Texas,	212,592	604,215	818,579	1,592,574
	<hr/>	<hr/>	<hr/>	<hr/>
	378,116	1,159,132	1,658,617	3,037,739

Now the Mexican States of to-day are divided from their old *confrères*, Arizona, Colorado, California, Nevada, Wyoming, Utah, New Mexico and Texas, only by an imaginary political line, and they differ from the Arizona, Colorado, California, Nevada, Wyoming, Utah, New Mexico and Texas of twenty years ago only in being populated, wealthy and abundant in demonstrated resources.

What railways have done for the northern half of New Spain, they will do again for the southern half of New Spain, unless dense populations, masses of accumulated wealth, organized centres of business and developed centres of society, art, education and civilization stand in the way. Next as to that question.

WHAT RAILWAYS DO FOR OLD, SETTLED AND POPULOUS COUNTRIES WHEN FIRST ENTERING THEM.



Having thus seen what railways have done for unpopulated wastes, let us see what railways do for long-settled, populous, wealthy countries when they enter them for the first time and with a clear field. They cannot develop a population like a magical picture, as in Colorado and Kansas, for the population is already there.

They can, however, develop a business and trade and commerce which makes these old countries new lands, and they do do it. This statement is not one of argument, but a record of facts, and we confine ourselves, accordingly, to presenting the record in official figures.

We select in illustration, first Belgium and France, because they have certain conditions of their national life in common with Mexico. Their dominant civilization is Latin, their common religion is Roman Catholic—the Latin Church—their languages are a Latin tongue. And if there is anything in the popular but very greatly exaggerated impression that Mexico is exceptionally subject to violent political changes, France, in the nineteenth century, has been, of all the world, the land of Revolutions, and Belgium is the European sanctuary of revolutionists.

The fairest measure of the business progress or movement of a country is its exports and imports. They are indeed the only common metre by which you can measure any one country with others, and get a comparative view of all countries at one time or different times.

BELGIUM.

Belgium is a very little and compact country, and therefore not as dependent on railways for business vitality as is Mexico, with its vast territorial expanse, without water-ways of any kind, or a topography that admits of them; but let her tell her story.

The railway history of Belgium begins in 1833, when the Belgian Government resolved to build a national system of roads throughout the kingdom at the expense of the nation, and employed the first engineer of the world, George Stephenson, to plan and lay them out. This plan was to connect the leading cities. The law authorizing their construction, at the cost of the Government, was passed in 1834, and in 1839 there were one hundred and eighty-five miles running. Slow work for now, but fast work for then.

Commerce received an immediate impulse, industries doubled and quadrupled, and this little territory took the lead of Europe in the rate of her industrial development and progress.

Let the figures tell their pregnant story.

BELGIUM.

Relation of Exports and Imports to Railway Development.

Year.	Canals (910 miles) and railways open.	Exports and Imports.	Increase per cent.	Exports and Imports per mile open.
1838	1,055	£15,680,000	45.72	£14,862
1845	1,205	26,920,000	71.4	22,340
1853	1,590	47,760,000	77.41	30,037
1860	1,907	72,120,000	51.	37,818
1864	2,220	97,280,000	35.88	42,919

FRANCE.

Now for France. France, as late as 1837, had but eighty-five miles of railway. She had, however, over 7,000 miles of inland water navigation, being blessed with good and long rivers.

In 1842 she began a systematic effort for the construction of railways *by government aid*, and in 1853 Napoleon III. carried this much further, extending a government guarantee of four and five per cent. to the stock of the roads—a guarantee, by the way, which has never been called for.

The trade and industries of France, as recorded in her exports and imports, began to increase at once, and kept pace with the growth of her railways. See the figures.

FRANCE.

Relation of Exports and Imports to Railway Development.

Year.	Navigations (7,700 miles) and Railways.	Exports and Imports.	Increase per cent.	Exports and Imports per mile open.
1840	8,264	£82,520,000	....	£9,985
1845	8,547	97,080,000	15	11,358
1850	9,507	102,204,000	5	10,750
1855	11,015	172,076,000	50	15,712
1860	11,286	232,192,000	34	17,476
1865	15,830	293,144,000	26.25	18,518

GREAT BRITAIN.

The railway era of England dates from 1833. Before that year the exports and imports of Great Britain had been for a long time stationary, *just as those of Mexico now are.*

With the construction of railways everything took a leap, and kept it up as the railway mileage increased. See the convincing figures again.

GREAT BRITAIN.

Relation of Exports and Imports to Railway Development.

Year.	Miles of Railway and Navigation.	Total Exports and Imports.	Increase per cent.	Exports and Imports per mile.
1833	4,000	£85,500,000	36.	£21,375
1840	5,200	119,000,000		22,884
1845	6,441	135,000,000	47.	20,959
1850	10,733	171,800,000		16,006
1855	12,334	260,234,000	52.	21,098
1860	14,433	375,052,000	44.	25,985
1865	17,289	490,000,000	30.	28,341

Two general deductions from these tables are as plain as the nose on a man's face.

1. Belgium develops first and most rapidly because her railway system covers her territory first and most rapidly and thoroughly, and is the strongest and best, its mileage holding the highest proportion to the territorial surface of the country. Belgium has a surface of 11,373 square miles, Great Britain of 121,115, and France 204,096. Belgium leads beyond comparison in the proportion of her railways to her territory.

2. These tables demonstrate with the precision of a law, that *the exports and imports of an old country without railways begin to grow when railways come, and develop in proportion to the growth of the railways.*

HOW THE ONE RAILWAY OF MODERN MEXICO HAS PAID.

The one railway in the Mexico of to-day with any length either of mileage or of period of operation is a striking demonstration of the value of railway property in that republic. "The Mexican Railway (limited)," popularly known as the English or Vera Cruz road, and running from Vera Cruz to the City of Mexico, has had a continuous history of vicissitude—enough to crush out any ordinary enterprise. Its construction was ruinously delayed and frequently suspended, Maximilian's invading army, among other troubles, seizing it and endangering its very existence. Its expenditures have been extravagant, probably beyond all precedent. It is not managed in compliance with acknowledged rules of railway economy in the United States; its rates—passenger fare and freight—being almost prohibitory; rates that in the United States or Europe would simply throttle and destroy business. It does not appear to have attempted to build up or develop local industries. It has no branches or feeders, save one brief offshoot of twenty-nine miles to Puebla. What is called the Jalapa branch is not a branch at all, but a short, independent line, coming in to the port of Vera Cruz. Not an ounce of its traffic need necessarily pass over the main line.

"The Mexican Railway (limited)" simply connects two isolated points, and apparently depends mainly on the foreign trade and travel of Mexico, which have only been born within a few years and are still in their extreme infancy. It is part of no system. It does not intelligently drain any considerable section of the country. It is too short to do much in the way of exchange of home products, and it has no trans-continental trade, stopping short in the centre of the land.

Yet with all these drawbacks its financial record is good. It opened its continuous line from Vera Cruz to the City of Mexico in 1873, and the following table presents its annual earnings and expenses from that date up to now.

These figures are taken from the report of Señor Romero, Minister of Finance, and from the official returns of the Company :

EARNINGS AND WORKING EXPENSES OF THE MEXICAN
RAILWAY (LIMITED).

Years.	Total Receipts.	Cost of Working.	Net Profits.
1873	\$2,117,553	\$1,290,563	\$826,990
1874	2,347,576	1,225,131	1,121,445
1875	2,370,606	1,249,332	1,121,274
1876	2,178,147	1,348,465	829,682
1877	2,700,007	1,535,910	1,104,997
1878 first half	1,527,401	757,955	769,446
1879	3,257,235	1,461,522	1,795,713
1880	3,709,910	1,562,321	2,147,589
1881 first half	2,563,000		

Or at the rate of over \$5,000,000 per annum gross, and about \$3,000,000 net. (See extract *London Railway News* farther on.)

This table of earnings and expenses "refers only to the line from Vera Cruz to Mexico and the branch to Puebla" (report of Secretary of Finance, 1879, p. 78, and Directors' report for 1881), in all two hundred and ninety-three miles. It shows an average annual earning for the eight years (supplying the wanting six months of 1878 on the basis of the six months given) of \$1,310,882, or \$4,473 per mile net. This is six per cent. on \$74,000 per mile, which is far more than the road should have cost or than it ought to carry. It also shows a regular and healthy increase of business from 1873 to the present time. For the last six months the gross earnings were at the rate per annum of \$17,747 per mile, and the net (accepting the *London News* estimate of proportion of running expenses—forty-one per cent.) \$10,322 per mile, equivalent to six per cent. on \$172,000 per mile. These are earnings, and do not include the generous government subventions. (Romero's Report, p. 79.)

Owing to extravagance and costly delays in construction, the road is burdened with an enormous mass of liabilities, footing up (including stock) \$39,103,905. (See Directors' report for May 13th, 1881.) The Mexican Railway (limited) is a short road of but two hundred and ninety-three miles, including the Puebla branch. The cost of this line has been fixed officially at \$36,319,526.52. (Report Secretary of Finance, 1879, p. 77.) It incurred, therefore, liabilities to the stagger-

ing sum of over \$123,000 per mile. But even on this sum it appears to have earned four per cent. as the average of eight years, and nearly twelve per cent. per annum for the last six months.

It is this solid earning capacity, and the well-founded belief that this earning capacity will increase with the growth of a railway system in Mexico, which gives the securities of this road, notwithstanding their unreasonable amount per mile, such strong prices in the market of the world. Appended is an official schedule of the shares and stock of the Mexican Railway (limited) as presented in the company's report for 1881, and also the quotations for them on the London Stock Exchange, September 9th, 1881.

STATEMENT OF CAPITAL AUTHORIZED AND CREATED
BY THE COMPANY.

	£	s.	d.		£	s.	d.
Ordinary shares, . 112,736 of £20 ea.	2,254,045	9	9				
Bal. of calls in arrear,	674	10	3		2,254,720	0	0
*1st preference shares, at 8 per cent., . 127,705 of £20 ea.	. . . . .	. . . . .	. . . . .		2,554,100	0	0
*2d preference shares, at 6 per cent., . 50,598 " "	. . . . .	. . . . .	. . . . .		1,011,960	0	0
291,039 shares, .	. . . . .	. . . . .	. . . . .		5,820,780	0	0
Perpetual debenture stock, . . . . .	. . . . .	. . . . .	. . . . .		2,000,000	0	0
					7,820,780	0	0

*Contingent on the profits of each separate half year.

From the *London Times* (September 10th, 1881), money article, Foreign Railways :

Mexican (limited) $86\frac{1}{4}$, $5\frac{7}{8}$, $\frac{1}{2}$.
Do. 1st Preference, 8 per cent., $133\frac{1}{2}$, $32\frac{1}{2}$.
Do. 2d Preference 6 per cent., $95\frac{3}{4}$, $6\frac{1}{4}$, $5\frac{1}{2}$.
Do. 6 per cent. Perpetual Debenture Stock, $124\frac{1}{4}$, $\frac{3}{8}$.

The following is the paragraph from the *London Railway News* referred to above, and which furnishes (unofficially, of course, but in a responsible shape) the earnings of the first six months of this year.

A stockholder writes to *London Railway News* :

SIR :—Many of your readers doubtless wish to know of a good dividend-paying railway. May I therefore draw the attention to the Mexican and Vera Cruz Railway, especially the ordinary stocks? The receipts for the half year have already amounted to £452,600 for twenty-three weeks only, and if we allow £20,000 per week, which is just the average for the remaining three weeks, we shall have £512,600 for the total receipts. The working expenses for the corresponding half years previous were in June, 1878, 49.62 per cent. of the receipts ; in 1879, 46.59 ; in 1880, 42.19. Would it be too much to say 41.0 per cent. for the current half year? If not, it leaves 59 per cent. as net profit, or £302,434 ; from this deduct £60,000 debenture interest, £100,000 first preference interest, £30,000 second do., £30,000 loss on Exchange (which has been more favorable)—£220,000 in all—leaving £82,434 for ordinary shares, which is sufficient to pay three and one-half per cent. and leave £3,500 to carry over, or giving at present quoted price of eight and one-half per cent. per annum.

The progress of the line has not been sudden and unexpected, spasmodic, but continued and remarkable, while the prospect for the future is certainly better than the past in a country like Mexico, whose “undeveloped riches,” as you said in your June 11th issue, are certainly exceedingly promising.

I am your obedient servant,

R. H. M.

London, June, 1881.



This Mexican Railway (limited), a little line of three hundred miles, was over sixteen years in building—1857 to 1873. Its wide gauge in ascending the steep escarpment of the mountain plateau necessitated heavy grades and extraordinary cost. It was built from both its outer ends towards its centre, the last track laid being the middle section. The rails laid from the City of Mexico were carried there over bad roads and laid down again over the route the mules had brought them. In 1861 came the foreign invasion of Maximilian, resulting in a forfeiture of the charter and stoppage of work.

“Delays and some grave errors in the direction of the work resulted in the useless expenditure of \$10,001,010 of capital.”—*Romero*.

This has been the history of the little English road which, standing alone in a distant and isolated country, has from 1873 to 1881, nevertheless, showed steady and healthy growth.

The American roads in Mexico, now in vigorous course of construction, start under very different conditions. They form a vast National system,

intelligently laid out, and thoroughly draining the best peopled sections of the land. They join and bind this heretofore isolated country to the 93,000 miles of railway system and 50,000,000 people of a sister republic. They are built by experienced railway builders; both the Mexican National and Mexican Central roads being under the lead of men who have been eminently successful in building excellent railways on the northern end of the continental plateau which extends from Wyoming to the very City of Mexico, and who have behind them syndicates of solid capital, full of faith and confidence in them. Part of these roads are even being constructed on the economical three-foot gauge, which has proved itself so admirably suited to the plateaus of Colorado, and so generous in lucrative yield to the investors. And lastly, the work is being pushed on a scale and with a vigor, energy and dramatic rapidity, which not only saves vast sums of money, but which, as the London *Saturday Review* thoughtfully points out, almost relieves the situation of any possible political or social dangers.





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